

Listing of Claims

1. (Previously Amended) A light emitting diode comprising:
a surface mount package;
a metal lead frame having mass sufficient to provide low thermal resistance
including at least one anode contact pad and at least one cathode contact pad and
~~wherein the metal lead frame comprises three anode contact pads and one cathode~~
~~contact pad;~~
a reflector positioned within the package; and,
a semiconductor die comprising a transparent substrate and a light emitting
component, wherein the semiconductor die connects to the metal lead frame via at least
two solder bridges positioned within the package between an anode contact and a
cathode contact over the reflector.
2. (Original) The light emitting diode of claim 1 further comprising a focusing
dome operative to refract light emitted from the semiconductor die and light reflected
from the reflector to create a predetermined radiation pattern.
3. (Original) The light emitting diode of claim 2 wherein the radiation pattern
comprises a 120 degree illumination pattern.
4. (Original) The light emitting diode of claim 1 wherein the reflector comprises a
truncated cone shape.
5. (Cancelled)
6. (Original) The light emitting diode of claim 1 wherein the lead frame
comprises a lead frame having a thermal resistance less than 300 K°/W.
7. (Original) The light emitting diode of claim 1 wherein the lead frame
comprises copper.

8. (Original) The light emitting diode of claim 1 wherein the lead frame comprises silver-plated copper.
9. (Original) The light emitting diode of claim 1 wherein the light emitting component comprises a GaN based compound semiconductor and the substrate comprises sapphire.
10. (Original) The light emitting diode of claim 1 wherein the light emitting component comprises an AlInGaP compound semiconductor and the substrate comprises GaP.
11. (Original) The light emitting diode of claim 1 wherein the light emitting component and the substrate are arranged side-by-side over the reflector.
12. (Original) The light emitting diode of claim 1 wherein the substrate is positioned on top of the light emitting component over the reflector.
13. (New) The light emitting diode of claim 1 wherein the metal lead frame comprises three anode contact pads and one cathode contact pad.
14. (New) The light emitting diode of claim 1 having no wire bond attachment to said anode contact or cathode contact.